



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/904,860	07/16/2001	Parakash Chakravarthi	A7790	5464

7590 01/17/2006

SUGHRUE, MION, ZINN,
MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213

EXAMINER

CHANG, JUNGWON

ART UNIT PAPER NUMBER

2154

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/904,860	Applicant(s) CHAKRAVARTHI ET AL.	
	Examiner Jungwon Chang	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8-20 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 21-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Action is in response to amendment filed 10/24/2005. Claims 7, 24, 25 are canceled. Claims 1-6 and 8-23 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 6 and 8-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Provance (US 6,731,613).
4. As to claim 1, Provance discloses the invention as claimed, including a system for providing a communication between a satellite network (12, fig. 2; col. 4, lines 37-50) and a terrestrial network (39, fig. 2; col. 6, lines 61-62), comprising:

a gateway (22, 36, fig. 2) coupled to receive and transmit data between said

satellite network and said terrestrial network (col. 3, lines 46-53; col. 4, lines 59-65), said gateway comprising a plurality of channel units (col. 7, lines 1-13; col. 7, lines 27-37); and

a control module, comprising means for monitoring signal quality of at least one of transmitted data and received data, operative to determine whether said signal quality is less than a predetermined standard and to select at least one of said channel units to implement at least one algorithm in accordance with channel quality (col. 7, lines 14-37; col. 1, lines 24-61; col. 5, lines 40-51).

5. As to claim 2, Provance discloses a microprocessor coupled to the control module that stores traffic information and performs statistical analysis and diagnostic activity in accordance with said traffic information; and a data storage device coupled to the microprocessor and configured to serve as a local resource manager that supports a network control center through exchange of said traffic information (col. 8, lines 33-67; col. 9, lines 1-10).

6. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. As to claim 5, Provance discloses wherein said microprocessor detects and correlates offline bit errors as a function of frequency and beam handovers, and

transmits a code from a remote site to said control module as additions to said at least one algorithm, so as to alter said at least one algorithm (col. 8, lines 33-67; col. 9, lines 1-10; col. 1, lines 24-61).

8. As to claim 6, Provance discloses wherein said microprocessor is an operator interface with a graphical user interface and permits said user to perform said diagnostic activity.

9. As to claim 8, Provance discloses wherein said control module is positioned one of external to said gateway and in said channel units of said gateway (col. 7, lines 14-37; col. 1, lines 24-61; col. 5, lines 40-51).

10. As to claim 9, Provance discloses wherein said plurality of channel units comprises: at least one high performance channel unit configured to implement a unique response; and at least one standard channel unit configured to implement a nominal algorithm, wherein said control module selects said at least one SCU when channel quality is greater than or equal to a prescribed threshold, and said control module selects said at least one HPCU when said channel quality is below a prescribed threshold (col. 3, line 62 – col. 4, line 36; col. 5, lines 25-63; col. 7, lines 14-26).

11. As to claims 10-14, Provance discloses wherein said unique response comprises said at least one algorithm selected from a plurality of computationally complex

algorithms and in accordance with said channel quality, said computationally complex algorithms comprising at least one of interference suppression, a complex adaptive equalization to overcome nonlinear distortion and delivery processing for maintaining at least one of proper polarization and frequency (col. 8, lines 33-67; col. 9, lines 1-10; col. 1, lines 24-61).

12. As to claim 15, Provance discloses a method of providing a communication interface between (12, fig. 2; col. 4, lines 37-50) and a terrestrial network (39, fig. 2; col. 6, lines 61-62), comprising the steps of:

- (a) at least one of receiving and transmitting data between said satellite network and said terrestrial network via a plurality of channel units (fig. 2; col. 6, lines 37-62);
- (b) monitoring signal quality of at least one channel unit to generate a corresponding signal quality output (col. 5, lines 25-63; col. 7, lines 14-26);
- (c) determining whether said signal quality output is less than a prescribed threshold (col. 5, lines 25-63; col. 7, lines 14-26); and
- (d) performing a first operation if said signal quality output is less than said prescribed threshold, and performing a second operation if said signal quality is greater than or equal to said prescribed threshold (col. 3, line 62 – col. 4, line 36; col. 5, lines 25-63; col. 7, lines 14-26).

Art Unit: 2154

13. As to claims 16 and 17, they are rejected for the same reasons set forth in claim 9 above.

14. As to claims 18-20, they are rejected for the same reasons set forth in claims 10-14 above.

15. Claims 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Wright et al, patent 6,760,556, Tirabassi et al, patent 6,400,925 disclose a method and system for power threshold leveling for a satellite communication system.

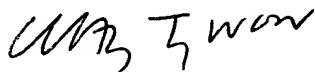
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is 571-272-3960. The examiner can normally be reached on 9:30-6:00 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on 571-272-3964. The fax phone

Art Unit: 2154

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Jungwon Chang'.

Jungwon Chang
January 7, 2006